

**AUTOMATED SALES COMMISSION CALCULATION METHODS AND SYSTEMS****Field of the Invention**

**[0001]** Methods and systems for calculating sales commissions and, more particularly, methods and systems for calculating sales commissions based on business rules stored in tables.

**Background of the Invention**

**[0002]** Fig. 1 is a schematic diagram of an example of a credit and debit card transaction system 10 in the United States. When a credit or debit card transaction is processed, data required to effectuate (or settle) the transaction is entered in a terminal, a request for authorization to complete the transaction (based on the transaction data) is generated, an authorization is either granted or denied, and if authorization is granted, necessary funds to effectuate the transaction are transferred. Such a transaction typically involves multiple parties including a Card Holder 12, an Acquiring Bank 14, a Merchant 16, a Bank Card Association 18, and an Issuing Bank 20. While only one of each party is shown for ease of illustration, it is understood that there is may be a plurality of each type of party in the credit card transaction system 10.

**[0003]** The Card Holder 12 is an entity, such as a person or business, that purchases goods or services from the Merchant 16 using a card, such as a credit card or debit card, issued by the Issuing Bank 20. The Merchant 16 is an entity, such as a business or person, that sells goods or services and is able to accept credit and/or debit cards to complete the sale. The Merchant 16 may be a point of sale ("POS") merchant, for example.

**[0004]** The Bank Card Association 18 is a card payment service association (such as Visa, MasterCard, Discover and American Express) that is made up of member financial institutions. The Bank Card Association 18, among other things, sets and enforces rules

governing their cards and conducts clearing and settlement processing. The Bank Card Association 18 neither issues cards nor signs merchants. Instead, it licenses financial institutions, such as the Issuing Bank 20, to issue cards, and licenses the Acquiring Bank 14 to acquire merchants' sales slips under the Association's brand name. The Bank Card Association 18 then manages the transfer of transaction data and funds between the Issuing Bank 20 and the Acquiring Bank 14. In addition, the Bank Card Association 18 maintains national and international networks through which data and funds are moved between the Card Holder 12, the Merchant 16, the Acquiring Banks 14 and the Issuing Bank 20.

**[0005]** The Acquiring Bank 14 is an entity that owns the legal relationship with the Merchant 16. The Acquiring Bank 14 provides services and products to the Merchant 16, and buys (acquires) the rights to the sales slips of the Merchant 16. The Acquiring Bank 14 credits the value of the sales slip to the Merchant's account at the Acquiring Bank. The Acquiring Bank 14 effectuates payment to the Merchant 14 upon authorization of a card transaction and charges the Merchant 14 a fee for handling each transaction. The Acquiring Bank 14 may have one or more Partners 15 that specialize in processing card transactions and/or offers additional services and products. The Partner 15 may be a bigger bank, such as J.P. Morgan Chase & Co., New York, NY, or a processor of transactions, such as First Data Merchant Services ("FDMS"), Melville, NY, for example. The combination of the Acquiring Bank 14 and one or more Partners 15 is referred to as an "Alliance" 15.

**[0006]** The Issuing Bank 20 issues cards to approved Card Holders, such as Card Holder 12, and sends bills to and collects payment from the Card Holder 12.

**[0007]** A Platform 22 serves as the liaison between the Merchant 16 and the Bank Card Association 18. The Platform 22 seeks authorization for the credit card transaction and conveys

the authorization or rejection to the Merchant 16. The Platform 22 also computes the interchange fees associated with each credit card transaction processed by the Merchants 16 in accordance with predetermined business rules established by the Bank Card Associations 18. The Platform 22 may be FDMS, for example.

[0008]        Thus, suppose the Issuing Bank 20 issues a credit card to the Credit Card Holder 12 (A). The Credit Card Holder makes a \$50.00 purchase at a Merchant 16 (B). Upon inputting transaction data, the Merchant 16 requests authorization from the Platform 22 (C). The Platform requests authorization from a Bank Card Association 18 (D) and ultimately the Issuing Bank 20 (E). The request for authorization is transmitted from the Merchant 16 to the Issuing Bank 20 through the Platform 22 and Bank Card Association 18. The resulting authorization (or rejection) (F) is then issued by the Issuing Bank 20 and transmitted back to the Merchant 16 through the Bank Card Association 18 (G) and the Platform 22 (H).

[0009]        Upon completion of the transaction, the Merchant 16, at some subsequent point in time, is paid the transaction price by the Acquiring Bank 14 (I) that has purchased the rights to the Merchant's sales slips (J). The Acquiring Bank 14 then receives payment from the Issuing Bank 20 (K). The Acquiring Bank 14 and the Issuing Bank 20 typically have their own clearing networks to effectuate their payments. For example, the Partner 15 of the Acquiring Bank 14 may provide a clearing network.

[0010]        Alliances 15 typically offer a range of credit and debit related services and products to the Merchants 16, such as credit cards, debit cards, electronic check processing, point of sale terminals, software, etc. The Alliances 15 may hire sales representatives ("sales reps") to offer the services and products to the Merchants 16. The sales reps are typically paid a commission for the sale and continued use of an Alliance's services and products. The

commission may be based on many factors, such as net sales, net revenues, processing volume, the length of the relationship with the merchant, meeting targets, etc. Net sales, net revenues, etc., are offset by returns. Sales reps may be compensated based on different compensation plans in which commissions may be calculated in different ways. Alliances 15 may also offer many different promotional programs to encourage the sale of their services and products. As an added incentive to sales reps to sell particular services and products, an Alliance 15 may offer higher commissions for the period of time that the promotion is taking place. The computation of commissions may therefore be complex. This is particularly true if there are a large number of sales reps and multiple, different payment plans, which may be changed over time.

**[0011]** Alliances 15 may use custom designed software to calculate commissions for their sales reps. Commercially available software may be used, as well. Commissions calculation software is typically not flexible enough to handle more than a few payment plans that may change over time. Changes in payment plans may require months of rewriting of code and troubleshooting for successful implementation.

### **Summary of the Invention**

**[0012]** Prior to March 15, 2003, FDMS employed sales reps on behalf of multiple Alliances, to offer their services and products. FDMS paid the employees commissions based on the compensation plans of the Alliances represented by the sales rep, and provided the sales reps with employment benefits, such as health insurance. The Alliances were therefore relieved of the administrative costs of employing and paying the sales reps. FDMS charged the Alliances a fee for this service. The sales reps were assigned to offer the services and products of one Alliance at a time, and in some cases were assigned to merchants of particular sizes or types, as well.

[0013] Many (if not all) of the Alliances had multiple compensation plans and the plans were frequently changed. FDMS used customized software to calculate the commissions to be paid to the sales reps. Values for a variable used in commissions calculations, basis points to be multiplied by net sales, were stored in tables. The business rules defining which basis points were applicable to calculate particular commissions for particular sales reps, were written in code. Whenever a business rule needed to be changed, the applicable code had to be rewritten. Changes could, therefore, take months to implement.

[0014] To facilitate the incorporation of new rules and the modification of existing rules in commissions calculations systems, in embodiments of the present invention, business rules for calculating commissions are stored in tables. New business rules may be readily added to existing tables or new tables may be readily created. Existing rules may be readily modified.

[0015] In accordance with one embodiment of the invention, a method of calculating commissions is disclosed comprising referencing at least one business rule in a table, wherein the business rule associates a variable with at least one condition. The method further comprises determining the at least one condition and identifying a value of a variable used to calculate commissions based, at least in part, on the at least one condition in the table. The method further comprises retrieving a value of at least one transaction and calculating the commissions based, at least in part, on the value of the variable and the value of the at least one transaction. The commissions may comprise a plurality of commissions components and the method may comprise conducting the referencing, determining, identifying, retrieving, and calculating for each commissions component, and summing the calculated commissions components. For example, a common commissions component paid to a sales rep is residual payments for ongoing transactions conducted by a merchant serviced by the sales rep. Residual commissions

payments may be a function of basis points and the value of net sales in a time period, such as a month. In this example, the applicable basis points are determined based on the age of the account (the length of time since the merchant account has been approved, for example) and the approval date. Here, the basis points is a variable and the age and date are conditions. Another example of a variable is a fee per sale of equipment. Conditions determining the fee to be paid may include whether a minimum number of sales have been made to the merchant and a range that the number of sales falls within. The variables and conditions may be associated in a table.

**[0016]** In accordance with another embodiment of the invention, a method of calculating commissions is disclosed comprising importing data related to a value of at least one transaction and calculating commissions based, at least in part, on the value of the at least one transaction and a business rule stored in a table. As above, the business rule may associate at least one variable with at least one condition, in the table. The variable may be chosen from the group consisting of basis points or fees per transaction, for example. The commissions may be calculated, at least in part, by multiplying the basis points and the value of the at least one transaction. The business rule may also comprise a condition on calculating commissions. The commissions may comprise a plurality of commissions components and the condition defines whether to calculate a commissions component. The commissions may be calculated by calculating each of the plurality of commissions components and summing the calculated commissions components. A change in a business rule may be received from the party and the business rule may be changed in the table. A business rule may be received from a party and stored in a table. The calculated commissions may be stored and a statement may be generated summarizing the calculated commissions.

**[0017]** Commissions adjustments may also be calculated to offset the summed commissions components. The commissions adjustments may also be calculated based on business rules stored in tables. An example of a commissions adjustment is recoup, where commissions paid in one time period for a new account that passes a credit approval, must be returned or recouped in a subsequent time period, if, for example, the account does not reach a minimum level of activity by a certain time after approval. The period of time and level of activity are conditions determining whether it is necessary to recoup a commissions payment.

**[0018]** In accordance with another embodiment of the invention, a system for calculating commissions is disclosed comprising means for importing data related to a value of at least one transaction and means for calculating commissions based, at least in part, on the value of the at least one transaction and a business rule stored in a table.

**[0019]** In accordance with another embodiment, a system for calculating commissions is disclosed comprising a processor and memory coupled to the processor. The memory comprises a table comprising at least one business rule. The processor is programmed to calculate commissions based, at least in part, on the at least one business rule and a value of at least one transaction. The table may comprise a plurality of business rules. The memory may comprise a plurality of tables of business rules.

**[0020]** In accordance with another embodiment, a system for calculating commissions is disclosed comprising memory and a processor coupled to the memory. The processor is programmed to reference at least one business rule in a table, wherein the business rule associates a variable with at least one condition, determine the at least one condition, identify a value of a variable used to calculate commissions based, at least in part, on the at least one condition in the table; retrieve a value of at least one transaction; and calculate the commissions

based, at least in part, on the value of the variable and the value of the at least one transaction.

The calculated commissions may comprise a plurality of commissions components. The processor may be programmed to calculate each commissions component, as described above.

The processor is then further programmed to sum the calculated commissions components.

### **Brief Description of the Drawings**

[0021] Fig. 1 is a schematic diagram of an example of a credit and debit card transaction system in the United States;

[0022] Fig. 2 is a block diagram of an example of a Commission Calculating System (“CCS”) that may implement embodiments of the present invention;

[0023] Fig. 3 is another schematic diagram of the CCS of Fig. 2, showing the Data Source and the Commissions Calculator in more detail, in accordance with an embodiment of the present invention;

[0024] Fig. 4 is an example of a method of calculating commissions in accordance with an embodiment of the invention;

[0025] Fig. 5 is an example of a residual basis points table, referred to as a RESID\_BASISPNTS table, for selecting the value of the basis points to be used in calculating residual payments in one implementation;

[0026] Fig. 6 is an example of a RESID\_AGE MONTH Table used to determine whether residuals should be paid, in one implementation; and

[0027] Fig. 7 is an example of a method of incorporating business rules in tables in accordance with an embodiment of the invention.

### **Detailed Description of the Preferred Embodiments**

[0028] Methods and systems for automatically calculating sales commissions based on predetermined business rules are disclosed. In one embodiment, the business rules are stored in



tables, facilitating the incorporation of new rules and changes in existing rules. Business rules may comprise associations between variables upon which commissions or components of commissions are calculated and conditions that determine the applicability of particular variables in particular circumstances. For example, a commissions calculation may be a function of the product of sales generated by an account and basis points. In this function, the value of the basis points is a variable. The particular basis points applied may depend, at last in part, on the age of an account generating the sales and a date the account was approved. The age and date are conditions. Values for the variables and the conditions may populate fields in the table. In one example of a table, fields in a row are associated and define one or more business rules. A business rule may only comprise conditions. For example, whether commissions paid in one period for enrolling an account needs to be debited against commissions earned in a subsequent period (recoup), may depend on whether the account has been activated by conducting a sufficient level of transactions within a predetermined period of time of being approved (by passing a credit check). In this example, the time period and the level of transactions are conditions of business rules that may be stored in tables. Functions or equations used to calculate commissions using the values of the variables may be written in software.

**[0029]** The commissions paid may be a sum of a variety of types of commissions, referred to as “commissions components,” which may be offset by commissions adjustments. The values of the commissions components are functions of a variety of inputs related to net sales, net revenues, etc., attributable to the sales rep. As mentioned above, net sales and revenues are offset by returns. In the implementations described herein, reference to sales, revenues, or other values upon which commissions are calculated, means net sales, revenues, etc., but that is not required to practice the invention.

[0030] In one example, sales reps represent one party, such as one Alliance 15. Sales reps may represent multiple parties as well. The Alliance 15 establishes one or more compensation plans defining business rules for use in calculating commissions. A sales rep may be compensated in accordance with one or more compensation plans. The sales reps have portfolios of merchants 16 that they have enrolled into an Alliance's program. Sales attributable to a sales rep include direct sales of services or products to merchants 16 and sales generated by merchants in a sales rep's portfolio, by conducting card transactions. Such transactions include credit card and debit card sales transactions with customers. Revenues attributed to a sales rep are the fees paid by merchants 16 in a sales rep's portfolio, typically per transaction, sale, lease, installation, etc. The applicable commissions components, the functions for calculating the commissions components, and the business rules determining the variables of the functions are defined by the Alliance 15 represented by the sales rep and the applicable compensation plan. An Alliance may determine that the commissions paid are based on only one component, as well.

[0031] In general, sales reps are paid commissions for establishing new merchant accounts by enrolling new merchants into a program sponsored by an Alliance and for the transactions conducted by the accounts in their portfolio. Sales generated in a time period for each merchant account is typically a significant factor in calculating commissions for a sales rep representing that account. Revenues earned by an Alliance based on transaction fees may be considered along with or instead of sales.

[0032] For example, one commissions component, referred to as "residuals" or "residual payments," is based on a percentage of a value of transactions generated by each account represented by the sales rep, in a time period. The value of the transactions may be the net sales, for example, which is multiplied by predetermined basis points to yield the residual payment

commissions component. Residual payments in a time period may be capped. A minimum value of sales may have to be met in the time period before any residuals are paid. The predetermined basis points applied to calculate the residual payment may be based on the length of time the merchant has been enrolled, approved (passed credit check) or activated (met a predetermined level of activity) in a particular program, referred to as the “age” of the account, and may decrease as the age increases, for example. There may be limits on the length of time that residuals are paid for an account, such as for five years, for example. There may also be minimum levels that must be met in a time period before a residual payment is made for that time period. The values for the basis points and the associated conditions are determined by and may differ among the Alliances 15 and among the Alliance’s compensation plans. The variables, these conditions, and identifications of a sales rep servicing the account, the Alliance represented by the sales rep, and the compensation plan applicable to the sales rep, may be associated in one or more tables for calculation of this commissions component. Since the basis points are also dependent on the sales rep and Alliance compensation plan, they may also be conditions in the business rules for calculating this and other commissions components discussed below, depending on how the tables are organized. Other business rules may be used instead of or along with these rules.

**[0033]** Another commissions component in this example, referred to as “revenue performance,” is based on revenues earned from the fees paid by merchant accounts in a sales rep’s portfolio, to the Alliance 15. The revenues attributable to a sales rep for each merchant account may be a function of the product of the revenues generated by that account and a particular value of basis points. In one example, the particular basis points, which is a variable, depends on a level of revenues achieved, which is a condition, as defined by business rules. In

particular, an expected level of revenues is established by the Alliance for each merchant account in the sales rep's portfolio. The business rules may associate basis points values with ranges defining the relation between the actual revenues and the expected level. For example, if the actual revenues is from 65% to 75% of the expected revenues, a first basis points is selected from the table. If the actual revenues is greater than 75% but less than or equal to 100%, a second basis points greater than the first basis points is selected from the table. If the actual revenues is greater than 100% of the expected revenues, a third, higher basis points is selected from the table. Additional ranges and basis points may be provided, as well. These variables and conditions may be associated with the applicable sales rep, Alliance and compensation plans in a table, as discussed above. The Alliance and compensations may vary the ranges and associated basis points in their business rules. Other business rules may be used, as well.

**[0034]** Another commissions component may be earned for the approval of new merchants 16 in an Alliance's programs. As mentioned above, the approval process typically involves a credit check of the merchant 16. A fixed amount may be paid for each account approved in a time period. The fixed amount paid, which is the variable, may vary based on the actual number of new accounts approved, which is a condition, in the business rules. Different fixed amounts may be paid for each of the first 10 accounts signed in a time period, and each of the next 10 accounts signed in that time period, for example. Such ranges are also conditions. Another condition may be that a minimum number of new accounts must be met before any commissions are paid. In one example, a commission component, referred to as a "Masters Club Bonus," is earned for enrolling more than a particular number of new accounts in a time period, such as one month. The variables and conditions are determined by the business rules of the compensation plan of the respective Alliance 15 applicable to a particular sales rep. The fixed

amounts and ranges may be correlated with the sales rep servicing the account, the Alliance represented by the sales rep and the applicable compensation plan, in one or more tables. Other business rules may be used as well.

**[0035]** Commissions are also paid for sales or revenues generated from special promotions. Special promotions may be established by Alliances 15, typically for limited periods of time, to provide added incentives for the sales reps to sell particular services or products. Such a bonus may be instituted to invigorate sales of lagging offerings, for example. In this implementation, a commissions component based on the sales of particular products and services is referred to as a Product Emphasis Bonus (“PEB”). The functions for calculating this commissions component and the business rules defining the variables and conditions may be similar to the calculation of the residual commissions component or the revenue performance commissions component, discussed above, depending on whether the commissions are based on sales or revenues, respectively. Similar associations may be provided in one or more tables. The commissions may be calculated based on other business rules, as well.

**[0036]** One or more commissions components may relate to equipment and products for an Alliance 15, such as credit and debit card validation terminals, printers, software, and Internet services. For example, a product sale commissions component and a product lease commissions component may be calculated for the sale and/or lease of such products, respectively. The commissions may be a function of a product of the net sales, net revenues (from fees associated with the transaction) and/or net number of units sold, for example, and applicable basis points. Conditions may include a minimum level of sales or value of sales or revenue, and/or unit sales or revenue growth targets that need to be met before any commissions are paid. If this commissions component for a particular Alliance compensation plan for a particular sales rep is

based on sales or revenues, the functions and business rules may be similar to the residual or revenue components, respectively, which are discussed above. If this commissions component for an Alliance compensation plan for a particular sales rep is based on units sold, the functions and business rules may be similar to the Master Club Bonus component. As above, the business rules are stored in one or more tables. The commissions for any or all of the sales reps may be calculated based on other business rules, as well.

[0037] Another commissions component may relate to the installation of equipment or software, for example. Installation may include setting up a POS terminal, for example. If this commissions component for an Alliance compensation plan is based on units sold, the business rules may be similar to the Master Club Bonus component. If this commissions component for an Alliance compensation plan is based on sales or revenues generated by the installed equipment, the business rules may be similar to the residual or revenue components, respectively. In either case, the business rules may be stored in one or more tables. The commissions may be calculated based on other business rules, as well.

[0038] The commissions components above are examples. Alliances 15 may have compensation plans based on any or all these commissions components, which may be calculated based on similar or different business rules. Other commissions components may be used instead or along with the commissions components discussed above. The same commissions components may be calculated differently for different sales reps, dependent upon the Alliance they represent and the applicable compensation plan.

[0039] As mentioned above, the applicable commissions component or the sum of applicable commissions components may be offset by one or more commissions adjustments to determine the commissions paid. One common commissions adjustment is referred to as

“recoup.” Recoup may be required when an Alliance authorizes the payment of commissions at the time of account approval, if the merchant 16 does not start processing transactions or does not meet a minimum level or value of transactions, in a predetermined time period, for example. Use or sufficient use is referred to as “activation.” In that case, the commissions payment, which may have been earned in the Master Club Bonus, for example, is returned in a subsequent time period. Typically, the amount of the advance commission is subtracted from the sum of the earned commissions in the subsequent time period.

**[0040]** Business rules related to calculating recoup may define a time period after payment to the sales rep that the merchant account must activate or commissions are recouped, as determined by the Alliance compensation plan. The time period may be 60 or 90 days, for example. In this case, the time period and minimal value of activity are conditions. After the Master Club Bonus or other such commissions component is calculated based on approved accounts, the accounts may be stored in a table including fields to indicate the account approval date, whether the account has been activated, the activation date, if any, the sales rep servicing the account, the Alliance represented by the sales rep and the applicable compensation plan. When sufficient activity is met, a flag is set in the appropriate field, and the date is entered in the date field, for example. If the field for the date does not indicate that activation has taken place by the number of days after approval defined by the business rules, then the commissions paid for that account is recouped in a current time period. The commissions paid is typically recouped by debiting the commissions earned in the current time period.

**[0041]** Another type of adjustment that may need to be made is referred to as miscellaneous adjustments, which compensate for commissions paid outside of a regular pay cycle. Operational discrepancies or adjustments caused by the late receipt of data required to

compute a commissions component in a proper time period, for example, may require such adjustments. Other adjustments may be provided along with or instead of either or both of these adjustments.

**[0042]** Fig. 2 is a block diagram of an example of a Commissions Calculating System (“CCS”) 100 that may implement embodiments of the present invention. The CCS 100 may comprise a Data Source 110 comprising a processor 112 and memory 114. The Data Source 110 accumulates data needed to calculate commissions and provides the data to a Commissions Calculator 120, which may also comprise a processor 122 and a memory 124. The Commissions Calculator 120 calculates commissions based on the data provided by the Data Source 110 and business rules stored in the memory 122. The Commissions Calculator 120 may provide the calculated commissions to a Commissions Payment Manager 130, which causes payment to sales representatives of the calculated commissions. The Commissions Payment Manager 130 may be part of the payroll department of the CSS 100.

**[0043]** As discussed above, a third party, such as FDMS, may hire sales reps to market the products and services of one or more Alliances 15 and pay commissions to the sales reps acting on behalf of the Alliances. A Billing Manager 140 may be provided to bill the Alliances 15 for the commissions paid to respective sales reps. The Billing Manager 140 may also compute a service charge to be included in the bill. The Billing Manager 140 may comprise a processor 142 and a memory 144. It is noted that the third party may also be the transaction processor or Platform 22 for the Alliances 15, as discussed above with respect to Fig. 1, but that is not required.

**[0044]** While one Data Source 110 is shown comprising one processor 112 and memory 114, a plurality of Data Sources 110 may be provided and/or a plurality of processors 112 and



memory 114 may be provided in each Data Source 110. One or more Data Sources 110 may be at different locations and/or may be dedicated to different classes of sales reps servicing different classes of merchants, as described further, below. Multiple processors and memory may be provided in the other components of the CCS 100, as well.

**[0045]** When a merchant agrees to purchase a new service or product promoted by a sales rep, the terms of the transaction are typically memorialized in and defined by a contract, referred to as a Merchant's Agreement. Some of the information required by the Commissions Calculator 120 is derived from the Merchant Agreements. The information may be entered into the Data Source 110 to be stored in the memory 112 by the CCS 100 or by the respective sales rep, via personal computers 160a, 160b, 160c through 160n, for example. The personal computers 160a through 160n may be connected to the Data Source 110 via an intranet or other such network, for example. The Merchant Agreement may also be scanned into the Data Source 110 (or another such data source), to be stored in memory 112 as an image.

**[0046]** The Data Source 110 may be a mainframe computer, such as an IBM Mainframe. The Commissions Calculator 120 may be a server, such as a server from Dell Corporation, Redrock, Texas. The memory 122 may comprise a database, such as an Oracle database server, available from Oracle Corporation, Redwood Shores, California.

**[0047]** The memory 114 of the Data Source 110 may comprise one or more databases to store information needed to conduct the commissions calculations. Some of the required information is obtained from the Merchant's Agreements, as mentioned above. Information related to transactions conducted by the merchants 16 may be provided by the Platform 22 of Fig.1 to the Data Source 110. The transaction information may be itemized for each merchant 16. For example, the total dollar value of the transactions conducted by a merchant 16 in a time

period and the total dollar value of revenues generated by the merchant in the time period may be provided. The CCS 100 may sell and lease equipment on behalf of respective Alliances 15.

Data concerning sales, lease and installation of equipment is therefore readily available to the Data Source 110.

[0048] Fig. 3 is another schematic diagram of the CCS 100 of Fig. 2, showing the Data Source 110 and the Commissions Calculator 120 in more detail. In this example, the memory 114 of the Data Source 110 is shown comprising a plurality of databases 202 through 216, in which data required for the commissions calculation is stored.

[0049] A Sales Rep database 202 may be provided to store identifying information about the sales reps, such as their name, mailing address, hire date, termination date (if any), the Alliance or Alliances 15 they currently represent and have represented in the past, associated start and end dates for those representations, the applicable compensation plan or plans of each Alliance, the applicable time periods for the applicable plans, the merchant accounts serviced, etc.

[0050] A Merchant Master File database 204 stores accumulated transactional information related to each merchant account, such as total sales and revenues in a time period, to be used to calculate the commissions in the time period, as mentioned above. Other information stored in this database may include an identification of the sales rep servicing the account, the merchant approval date, the merchant activation date, and the accumulated number of enrolled, approved and/or activated accounts in the sales reps portfolio in a current time period. Residual, revenue, and Master Club bonus commissions components, for example, may be calculated based, at least in part, on the information in this database. Data concerning individual transactions related to each merchant account may be provided from the Platform 22

to be accumulated in the Merchant Master File database 202 or the data may be accumulated by the Platform or the processor 112 prior to storage in the database.

**[0051]** A Financial History database 206 stores accumulated sales/revenue information for each merchant from prior time periods. This information may be provided by the Merchant Master File database 204. Past information may be needed to calculate residuals and recoup, for example.

**[0052]** A PEBs database 208 is provided to store accumulated information related to the Product Emphasis Bonus commissions component. The information may include total sales of the particular services or products subject to the PEBs bonus per merchant account. The responsible sales rep may be identified here, as well. If the sales reps and their merchant accounts are correlated in the Sales Rep database 202, then it is not necessary to include the information about the sales rep here and in other databases dedicated to commissions components.

**[0053]** An Equipment database 210 contains information about equipment sales, such as credit card validation terminals, printers, software, Internet services, etc., and the merchant making the purchase, which is used to calculate the product sale commissions component. A Lease database 212 contains information about leased equipment and the merchant the equipment is being leased to, which is used to calculate the product lease commissions component. Installation information may be stored in the Equipment database 210, the Lease database 212 or in another database (not shown), for example. The Equipment database 210 and the Lease database 212 may be readily combined.

**[0054]** The Scanning database 214 contains images of the scanned Merchant Agreements, discussed above. Storing the Agreements enables the Agreements to be checked, if necessary.

**[0055]** A Global Fee database 218 stores the accumulated fees charged each merchant 16 by the Alliance 15 and Card Associations 18 to conduct each type of transaction, throughout the world. The accumulated fees include the discount rate charged by the sales rep servicing the account for the Alliances 15, minus the interchange fee charged by the Card Associations 18, plus assessments charged by clearing networks 13. Revenues in the calculation of commissions components may be based on fees, such as the discount rate, charged to the merchant account, for conducting transactions. Many different types of fees may be charged per transaction for different contracted services requested by the merchant. Contracted services include the type statement to be received and account credit, for example.

**[0056]** The databases 202 through 216 are merely examples of ways to organize and store information. The information may be organized and stored in other ways, as well.

**[0057]** The data from the databases 202 through 218 is provided to the Commissions Calculator 120 in the form of one or more ASCII files via an SQL feed, for example. An ASCII file may be provided from each database, for example. The Commissions Calculator 120 comprises a Data Tables database 230, a Business Rules Tables database 232, and a Calculator 234. The Calculator includes a memory 236. The Commissions Calculator 120 loads the data received from the Data Source 110 into tables in the Data Tables database 230. The variables and conditions in the business rules are stored in tables in the Business Rules Tables database 232.

**[0058]** In the tables, applicable business rules are preferably associated with the sales rep, the represented Alliance, the applicable compensation plan of each Alliance, the merchant account, etc., as appropriate. Information in the Financial History database 206 is provided to the Commissions Calculator 120 upon the request of the Calculator 120, when needed to perform certain calculations.

**[0059]** The Calculator 234, which may be part of the processor 122 of Fig. 2 or may be another processor or processors, calculates the commissions for each sales rep, based on the data in the Data Tables database 230 and the business rules in the Business Rules database 232. The commissions components described above are calculated and stored in the memory 236.

**[0060]** The stored values for the calculated commissions components are summed to yield a gross calculated commissions for each sales rep, which are also stored in the memory 236. Miscellaneous adjustments are calculated, to determine payments made to some sales reps outside of the regular pay cycles. Operational discrepancies or adjustments due to late receipt of data, for example, may cause such adjustments. The miscellaneous adjustments for each sales rep, if any, are stored in the memory 236, as well. Recoup is then calculated for each sales rep, to determine how much, if any, money needs to be returned by a sales rep. The recoup value, if any, is stored in the memory 236, as well. The adjustments may be calculated in any order.

**[0061]** The gross calculated commissions for each sales rep is offset by the miscellaneous adjustments and the recoup, if applicable, to yield a net calculated commissions for each sales rep. This is done by subtracting the miscellaneous adjustments and the recoup from the gross calculated commissions, for each sales rep. The sales rep is paid the net calculated commissions.

**[0062]** The Commissions Calculator 120 may comprise a plurality of modules to accommodate different business rules. Different modules may be dedicated to different

classifications of sales reps or merchants. For example, business rules may vary based on the size of merchant account or location of the merchant, for example. Providing separate modules dedicated to particular classes may facilitate processing, because only the applicable business rules need to be stored in that module. Sales reps that work with merchants above a particular revenue range, such as 2.5 million dollars, may be handled by one module. Sales reps working with smaller sized merchants may be handled by another. Sales reps working with overseas (non-US) merchants may be handled by an overseas module. Sales reps may work with different merchant accounts that may be handled by different modules. A module may be provided to handle all sales reps, as well.

**[0063]**        Accumulated data for each month may be provided from the Data Source 110 to the Commissions Calculator 120 on the 1st day of the following month. Commissions may be calculated and paid by the end of every month.

**[0064]**        The Commissions Calculator 120 also comprises a Commissions Database 240, a Commissions History database 242, a Commissions Inquiry system 244 and a Statement Generator 246. The net calculated commissions for each sales rep, as well as the commissions components and adjustments for a period of time, are stored in the Commissions Database 240. The time period may be 13 months, for example. All the paid commissions and the underlying components and adjustments for the life of the CCS 100 are stored in the Commissions History database 242. The Commissions Inquiry System 244 is provided to handle inquiries by sales rep. The Commissions Inquiry System 244 has access to the Commissions History database 242 for information necessary to respond to inquiries concerning paid commissions.

**[0065]**        The Statement Generator 246 generates summary statements itemizing the commissions components, gross calculated commissions, miscellaneous adjustments, recoup and

net calculated commissions, based on information provided by the Calculator 236. The statements are mailed to each sales rep. The Statement Generator 246 also prints a statement for each sales rep for the Commissions Payment Manager 130. The Payment Manager 130 effectuates payment to the sales rep based on the statement. The statement provided to the Payment Manager 130 may contain only the net calculated commissions or it may be an itemized statement of the earned commissions components, the gross calculated commissions, the miscellaneous adjustment and the recoup for each sales rep. The statement or other such document may also be provided to the Billing Manager 140, which bills each participating Alliance 15 for the payments made to the sales reps representing that Alliance. The Alliance 15 typically expects an itemized statement.

**[0066]** Fig. 4 is a summary 300 of the example of a method of calculating commissions in accordance with an embodiment of the invention, described above. Data necessary for the calculations is imported, in Step 302. Commissions components are calculated for each sales rep based on business rules stored in tables, in Step 304. The commissions components are summed to yield a gross calculated commissions for each sales rep, in Step 306. Miscellaneous adjustments are calculated for each sales rep, in Step 308. Recoup is calculated for each sales rep, in Step 310. The summed commissions components, referred to above as the gross calculated commissions, is offset by the calculated adjustments and recoup for each sales rep, if any, to yield a net calculated commissions for each sales rep, in Step 312. The commissions components, miscellaneous adjustments and recoup for each sales rep are stored, in Step 314. In the example described above, the information is stored to the Commissions Database 240 and the Commissions History database 242. Statements summarizing the commissions components, miscellaneous adjustments and recoup for each sales rep are generated, in Step 316. The sales

rep, the payroll department of the CCS 100 and the billing department of the CCS receive statements in the same or different formats.

**[0067]** Examples of tables of business rules for calculating residual payments are discussed in more detail, below. Tables and calculations for other commissions components may be similar.

**[0068]** As discussed above, commissions based on transactions generated by existing merchants in a sales rep's portfolio are referred to as "residual payments" or "residuals." Residual payments are typically a function of a percentage of a value of the transactions in a time period. The "value" of the transactions may be based on net sales, for example. Net revenues may be used instead. The percentage or basis points applied to the value may be determined by business rules based on conditions such as the age of the account in months or years, which may be calculated by comparing the credit approval date or activation date of the merchant's account, as defined by the business rules, with an end date of a current time period. The basis points may decrease (or increase) as the account ages. Business rule conditions may also define minimum values that must be met for any residual to be paid for a particular account. The business rules may also associate particular basis points with particular achieved level of sales, for example. Business rules may also limit the period of time that residuals may be paid, such as for up to 5 years. Business rules may also limit total residual payments that a sales rep may receive per time period, such as per month, per year, or over the total period that residuals may be received. These business rules are typically established by the Alliance represented by the sales rep, and may vary among different Alliances and the different compensation plans of an Alliance.

**[0069]** In one implementation, basic information identifying each sales rep, each Alliance 15, each compensation plan of each Alliance, and each merchant account are stored in respective



sales person tables, Alliance tables and sales plan tables. A salespersons table is provided for each sales rep. Each salesperson table includes an identification number of a respective sales rep employed by the CCS 100, along with the full name, address, start date with the CCS, and end date (if there is one) of the sales rep. Each Alliance table correlates an Alliance name with a code identifying the Alliance (referred to as a “Marker”), an address of the Alliance, a start date of the Alliance with the CCS 100 and an end date (if there is one) of the Alliance with the CCS. A sales plan table is also provided for each sales rep to correlate the sales rep with the Alliance or Alliances the sales rep has or is representing and the plan code or codes of the applicable compensation plans of the Alliance applicable to the sales rep. The start date and end date (if there is one) for each applicable plan are included, as well. As mentioned above, a sales rep may represent multiple Alliances and may be compensated under different plans, depending on the merchant and the relevant time period. Each merchant account table includes the merchant’s identification number, address, approval date, activation date, and associated sales rep.

**[0070]** Fig. 5 is an example of a portion of a RESID\_BASISPNTS Table used to determine the value of the basis points to be used in calculating residual payments in this implementation, for certain of the business rules for the Alliance (marker) 615, compensation plan (plan code) A1. Here, the business rules dictate that applicable basis points (variable) are determined, at least in part, based on the age of the account and the start date of the account (conditions). The column headings of the RESID\_BASISPNTS table of Fig. 5 are summarized in Table I, below. The name of each field (Field Name) and a brief description of the contents of the field (Record Contents) are indicated. Additional business rules related to caps on residual payments based on the start date of the account and the age of the account are provided, as well.

Exemplary values are shown. Business rules related to residual payments for other compensation plans of this and other Alliances may be provided in this or other tables.

**Table I**

Field Name	Record Contents
Marker	ID of Alliance
Plancode	Plan Code of Alliance Compensation Plan
Bpts_year	Basis points Year-Age of Account in Years
Basispoints	Basis Points Value
Pay_Months	Number of Months Residuals to be Paid
Capamount	Cap (Maximum) Amount of Residual Payments
Startdate	Start Date of Account Initiation Period
Enddate	End date of Account Initiation Period

**[0071]** In Table I, a Marker uniquely identifies each Alliance by numbers, letters or both.

A Plancode identifies a compensation plan of the Alliance, also by a number, letters or both.

Bpts\_year is the age in years of the merchant account. In this example, each Bpts\_year is 12 months long. Bpts\_year 1 is the first 12 months of the life of the account. Bpts\_year 2 is the second 12 months of the life of the account (months 13-24), etc. Basis points is the value of the percentage used to calculate a residual payment for an account of a particular age. Twelve (12) basis points, for example, is 12%. Typically, the value of the basis points decreases as the age increases, but other arrangements are possible.

**[0072]** Pay\_Months is the number of months for which residuals will be paid. For example, the Alliance 615 limits residual payments to 60 months (five years) in plan A1.

**[0073]** Capamount is the maximum amount of residual payments in dollars that may be paid per year, if any. This amount may also decrease (or increase) each year.

**[0074]** In this example, the business rules dictate that the applicable basis points differ based on when a merchant account is approved or activated, dependent on the business rules. Startdate and Enddate defines conditional time periods. In this example, for Plan Code A1 of Alliance 615, the business rules are different for accounts approved or activated from May 1, 1999 through December 31, 2000, and January 1, 2001 through June 30, 2002.

**[0075]** Summarizing the business rules in the Table I for Marker 615, Plancode A1, for a merchant account approved or activated in a program between May 1, 1999 and December 31, 2000, the basis points applicable to the first basis points year (Bpts\_year 1) is 15. There is a cap of \$1,000 in residual payments on that account, and residuals are paid for 60 months. The basis points for that same merchant account in the Bpts\_years 2, 3, 4, and 5 is 7, 5, 4 and 3, respectively. In Bpts\_years 4 and 5, the Capamount decreases to \$750 and \$500, respectively. Since the Pay\_Months for an account approved or activated between January 1, 2001 and June 30, 2002 is 60 months, there are 5 Bpts\_years. All other columns are the same.

**[0076]** For the same Alliance and compensation plan, in accordance with other business rules, for a merchant account approved or activated between January 1, 2001 and June 30, 2002, the basis points applicable to Bpts\_\_year 1, 2 and 3 is 10. There is no cap and residuals are paid for 36 months. Since the Pay\_Months for an account approved or activated between January 1, 2001 and June 30, 2002 is only 36 months, there are only 3 Bpts\_years.

**[0077]** An Alliance may require that certain levels of sales or revenues be achieved before paying residuals. Business rules may correlate the particular levels that must be achieved with particular time periods. Fig. 6 is an example of a RESID\_AGEMONTH Table used to

determine whether residuals should be paid in accordance with additional business rules in any particular month in which residuals may be paid. The name of each field and a brief description of the contents of the field are summarized in Table II, below.

**Table II**

Field Name	Record Contents
Marker	ID of Alliance
Plancode	Plan Code of Alliance Compensation Plan
Fromage	Starting Month for Qualification Year
Toage	Ending Month for Qualification Year
Chk_Table	“A” if CMHSTAC Table is to be checked, “Q” if RESQUAL Table is to be checked, and “O” if no table is to be checked for qualification.
Bpts_year	Basis Points Year
Qlyr_base	Qualification Year Base
Startdate	Start Date
Enddate	End date

**[0078]** The Marker and Plancode fields were described above. A Chk\_Table field indicates whether other tables, referred to as CMHSTAC and RESQUAL (residual qualification) need to be checked for qualifications. In this example, “A” indicates that the CMHSTAC table needs to be checked, “Q” indicates that the RESQUAL table needs to be checked and “O” indicates that no table need be checked. If no table needs to be checked, then residuals are paid based on the basis points of the Bpts\_year, and the total sales/revenues for that time period, as determined in Table I.

[0079] The CMHSTAC table (not shown) associates achievement levels of net sales with time periods in which those levels must be met, for the sales rep to receive residuals in that time period. For example, a certain level of net sales may need to be met in the month after approval of an account, for residuals to be paid. RESQUAL is a residual qualification table (not shown) used to indicate whether an achievement level required in CMHSTAC in a time period has been met and to store the actual sales or revenues in that time period.

[0080] In this example, a business rule requires that in months 1-4, an achievement level need not be met for residuals to be paid. Another table need not, therefore be referred to to determine if residuals should be paid and a flag in the CHK\_Table field is set to "O," in the row including months 1-4. Another business rule requires that in month 5, an achievement level must be met for residuals to be paid. The CMHSTAC table therefore needs to be checked to determine whether the generated sales or revenues qualify for residual payments. A flag in the CHK\_Table field is therefore set to "A." Another business rule requires that once an achievement level is met in the month 5 then achievement levels do not need to be checked again in months 6-13. The flag in the CHK\_Table is therefore set to Q for months 6-13, indicating that the RESQUAL table needs to be checked to determine whether the required achievement level was met in month 5. If yes, then residuals are paid in each of months 6-13. If not, then no residuals are paid in those months. Another business rule requires that an achievement level be met in month 14 for a residual payment to be made. Therefore, in month 14, the flag in the CHK\_Table field is set to "A." In months 15-25, 26-37, 38-49, and 50-61, the flag in the CHK\_Table is set to "Q." The RESQUAL table is therefore checked to confirm that the achievement level was met in the month 14. Months 15-25, 26-37, 38-49, and 50-61 are in

Bpts\_years 2, 3, 4 and 5, respectively. If it was not met in month 14, then residuals are not paid from month 15 through month 61.

**[0081]** Qlyr\_base is a qualification year base, which indicates whether the date from which Fromage, Toage, Bpts\_year and Startdate, Enddate in the RESID\_BPNTS Table of Fig. 5 is calculated, referred to as the critical date, is the account approval date or the account activation date, in accordance with another business rule of the Alliance compensation plan. “A” indicates activation date, “C” indicates approval date. In this example, the flag in the Qlyr\_base is set to C, indicating that the critical date is the approval date.

**[0082]** Startdate and Enddate in the RESID\_AGEMONTH of Fig. 6 are time ranges within which the critical date may fall. Business rules may vary based on this range, as in the RESID\_BASISPTS, table of Fig. 5. In this example, however, different sets of business rules are not provided for rules in the RESID\_AGEMONTH table for the Plan Code A1 of the Marker (Alliance) 615. The Startdate is therefore the start date for the CCS 100 and the Enddate is left blank. Business rules in this table for other Alliance plan codes could vary based on the critical date and then these columns would be filled.

**[0083]** If there are any changes to the business rules governing the determination of basis points or Bpts\_years applicable in a particular Alliance compensation plan, then the values in the appropriate RESID\_BASISPTS Table may be readily changed. If there are any changes to the business rules governing the qualification levels, such as the range of months associated with indications of checking the CMHSTAC or RESQUAL tables, the changes may be readily made in the RESID\_AGEMONTH Table. The qualification tables (CMHSTAC and RESQUAL) may be readily changed as well. New residual payment business rules may be readily provided in these, other or new tables, as well. New fields can be added or fields removed, as necessary.

[0084] An example of how the tables are used to calculate residuals will now be described. To conduct the residual payment component calculation, the RESID\_BASISPNTS table, the RESID\_AGEMONTH Table, along with other tables, such as the CMHSTAC, RESQUAL, salespersons, Alliance, sales plan and merchant tables are retrieved from the Business Rules Tables database 232 by the Calculator 234 and stored in the memory 236. The memory 236 may be a database, as well. The tables are validated to check the integrity of the data in the fields. Errors in fields require correction.

[0085] A residual input table (not shown) may be created and populated with accumulated data related to all the merchant accounts in the Data Tables database 230. The data is provided by the Data Source 110. The residual input table correlates a marker and a plan code, an identification of the merchant, an account approval date, an account activation date, an identification of the sales rep servicing that account, the Alliance the sales rep represents, the compensation plan applicable to the sales rep and the total sales and/or revenues in the period generated by that account. A chain field may be provided to identify whether a merchant is part of a chain and to identify the chain. Commissions components may be based on the accumulated sales and/or revenues for an entire chain, as determined by the business rules. A field is provided to indicate whether the data in other fields has been validated, as discussed below. The input table may be populated in the Data Tables database 230 and/or in the memory 236 of the Calculator 234, for example.

[0086] Prior to calculating the residuals for a sales rep, data in the residual input table is validated. The identity of the sales rep is checked based on the salesperson table. The marker identifying the Alliance is checked in the Alliance table. The plan code is checked in the sales plan table. The length of the merchant identification code for each merchant and chain

identification code are checked to ensure that they have the proper lengths. If any validation fails, then a flag is set in the validation field and that data is not used.

**[0087]** The age of each merchant account in months is calculated, based on the activation date or the account approval date and the current date, for example, as determined by the Alliance 15 and applicable compensation plan. The age may be determined by the Calculator 234. The procedure may be in the code of the software controlling operation of the Calculator 234. The age of each merchant account is stored in a table or tables in the Data Tables 230 and or the memory 236.

**[0088]** Once the age of the account is determined, applicable business rule or rules are referenced in an appropriate table in the Business Rules Tables database 232. In the example, the age is compared to the Fromage and Toage columns of the RESID\_AGEMONTH Table of Fig. 6 by the Calculator 234, to determine which row defines the other aspects of the applicable business rules. If the account is three months old, for example, it falls within the first row of the RESID\_AGEMONTH Table of Fig. 6. The Bpts\_year is 1 and the CHK\_Table entry is O. It is not, therefore, necessary to check the achievement tables (CMHSTAC or RESQUAL). The RESID\_BASISPNTS Table of Fig. 5 is then checked by the Calculator 234 to determine the applicable basis points for a Bpts\_year of 1. If the merchant account was approved (or activated, depending on another business rule) between May 1, 1999 and December 31, 2000, for example, the applicable basis points is 15. If the merchant account was approved (or activated) between January 2, 2001 and June 30, 2002, for example, then the applicable basis points is 10. The applicable basis points in percentages is multiplied by the sales for that merchant account retrieved from the Data Tables database 230 and 0.0001, for example, to yield a calculated residual commissions component. The software controlling operation of the Calculator 234 may



conduct this calculation. The equation may be in the software code. The calculated residual is then compared to the value in the Capamount field. If the calculated residual is less than the Capamount, the calculated residual is stored. If the calculated residual is greater than the Capamount, then the Capamount is stored.

**[0089]** If the age of the account is 5 months, for example, the Bpts\_year is 1. “A” is set in the CHK\_Table field, indicating that the CMHSTAC table needs to be checked for qualification. The achievement level for month 5 is compared to the actual net sales. If the achievement level for month 5 is met, then the applicable basis points is identified in the RESID\_BASISPNTS Table of Fig. 6, based on the Bpts\_year 1 and the Start and End Dates of the approval (or activation) date of the merchant, as discussed above. Cap amount is checked, as well. If the achievement level is not met, no residual payments are made for this merchant account.

**[0090]** If the age of the account in months is 14, for example, the Bpts\_year is 2. “A” is set in the CHK\_Table field, indicating that the CMHSTAC table needs to be checked for qualification for residuals. The achievement level for month 14 is compared to the net sales. If the achievement level for month 14 is met, then the applicable basis points is identified in the RESID\_BASISPNTS Table of Fig. 6, based on the Bpts\_year 2 and the time period defined by the Start and End Dates of the critical date, as discussed above. Capamount is checked, as well. If the achievement level is not met, no residual payments are made for this merchant account.

**[0091]** If the age of the account in months is 20, the flag in the CHK\_Table field is set to Q, indicating that the RESQUAL table needs to be checked, to confirm that the achievement level was met in month 14, in this example. If it has, then the applicable basis points for month 20 is identified in the RESID\_BASISPNTS table in Fig. 5, based on the Bpts\_year, which is still

2, and the time period of the critical date. Capamount is checked, as well. If the achievement level for month 14 has not been met, then no residuals are paid in month 20, either.

[0092] The residual for each merchant account may be stored in a residual payment table (not shown) for that sales rep, in association with an identification of the merchant account, for example, in the Data Tables database 230 or in the memory 236. Calculated residuals for all the merchant accounts in the sales rep's portfolio may be similarly calculated and stored in the table. A sum of all the residuals may be calculated and stored in a residual field in a commissions component table (not shown), also in the Data Tables database 230 or in the memory 236. Other calculated commissions components for the sales rep may be stored in the commissions components table, and summed to yield the net calculated commissions components. Adjustments for the sales rep may be similarly calculated, stored in an adjustments table, summed and then offset against the net calculated commissions to yield the adjusted calculated commissions for that sales rep. The adjusted calculated commissions for all sales reps may be stored in one or more tables, as well, associated with an identification of the sales rep and the time period, for example. The calculations may be performed by the Calculator 234, for example. Tables discussed here and other portions of the description and not shown, may be readily constructed by those skilled in the art.

[0093] Fig. 7 is an example of a method 400 of incorporating business rules in tables in accordance with an embodiment of the invention. A business rule is received from an Alliance, in Step 402. The business rule may be the basis points used to calculate a commissions component, for example. The business rule is stored in a table, in Step 404. A change to a business rule already stored in a table is received from the Alliance, in Step 406. The change is made to the business rule in the table, in Step 408. A new business rule is received from an

Alliance, in Step 412. The new business rule is added to a table, in Step 414. These steps may take place in different orders, as well. Business rules may be entered and modified via an interface device 248 to the processor 120, for loading into the Business Rules Tables database 232, for example. The interface 248 may be a computer, for example, comprising a keyboard and a display (not shown).

[0094] These tables are merely exemplary. Other tables with different information may be used in accordance with the teachings of the present invention, as is apparent to one of ordinary skill in the art. In addition, the particular business rules established by Alliances or other such third parties may dictate the use of different tables.

[0095] As discussed above, storing the business rules in tables instead of in program code facilitates the entry and change of business rules. This is particularly useful in systems servicing a large number of Alliances, each of which may have unique, multiple plans, which may be modified often. The embodiments of the invention would be useful in simpler systems, as well.

[0096] Other Commissions Calculating Systems may use some or all of this type of information and other information, dependent upon the environment the system is used in (type of business, for example) and the particular details of the commission payment plans being implemented. While the CCS System 100 has been described above in the context of the credit and debit card industry, such a system may be used in any industry where commissions are paid, particularly where commissions are paid in accordance with a multiplicity of variable business rules. In addition, while described above with respect to a system hiring sales reps to represent Alliances 15, embodiments of the invention are applicable to systems hiring sales reps to represent any third party or to represent the system itself. The system and third parties may be

involved in card processing, other financial transactions, or the sale of any types of products and services, whether financial or not.

**[0100]**        The systems disclosed herein are in a form in which various functions are performed by discrete functional blocks. However, any one or more of these functions could equally well be embodied in an arrangement in which the functions of any one or more of those blocks or indeed, all of the functions thereof, are realized, for example, by one or more appropriately programmed processors.

**[0101]**        The foregoing merely illustrates the principles of the invention. It will thus be appreciated that those skilled in the art will be able to devise numerous other arrangements which embody the principles of the invention and thus are within the spirit and scope of the invention, which is defined in the claims, below.